01446700801

P.02

压 50 B



Harris Pye Marine Ltd., David Davies Rd., Barry Docks, Barry.

South Glamorgan. South Walcs. **CF63 4AB** UNITED KINGDOM.

18th September 1998

Norwegian Cruise Line, 7665, Corporate Centre Drive, Miami, Florida. FLA 33126

UNITED STATES OF AMERICA.

For the attention of:- Mr. Per O. Sopp. Senjor Port Engineer.

Dear Sirs.

s.s. NORWAY.

Nos. 22 and 23 BOILER RETUBING.

We acknowledge with thanks the receipt of your enquiry document of August 28th 1998 and repair specification for the retubing of Boilers Numbered 22 and 23 of SS "NORWAY" during the 1999 drydocking and are pleased to submit our quotation as follows:-

1. EXTENT OF RETUBING.

Our quotation is based upon the extent of work being that the two boilers will be fully re-tubed with the exception of the superheaters, superheater support tubes and economisers.

2. MATERIAL SUPPLY.

For each boller we offer to supply the following materials:

- 2.1 16 pieces of REAR WATER WALL tubes would be fully fabricated and ready to fit to the identities "A to P" as shown on the Chantiers de l'Atlantique drawing No. FRA CHP 1-25 entitled "Faisceau Tubulaire - Mur d'eau Facade Ariere" from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.
- 2.2 251 pieces GENERATING TUBES identified as Rows 5 13 on Chantiers de l'Atlantique drawing FRA CHP1 - 24A - 1, entitled "Faisceau Tubulaire - Faisceau Vaporisateur", fully fabricated and ready to fit as follows:

LITSGOSCETO PG 1 OF 5



196 from 70 mm O.D. by 5.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.

and

- 55 from 57 mm O.D. by 63 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.
- 2.3 57 pieces SCREEN TUBES identified as Rows 3 and 4 on the Chantiers de l'Atlantique drawing FRA - CHP1 - 24A - 1, entitled " Falsceau Tubulaire - Falsceau Vaporisateur" from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.
- 2.4 56 pieces SIDE WALL / ROOF TUBES identified as Rows 1 and 2 on the Chantiers de l'Atlantique drawing FRA - CHP1 - 24A - 1, entitled "Falsceau Tubulaire - Falsceau Vaporisateur" from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1,

3. GENERAL NOTES

- 3.1 All materials would be of the grades noted, or equivalent, or superior.
- 3.2 All materials would be certified in accordance with Class Rules.
- 3.3 All fabrications will be inspected by Class before dispatch from our works and certified accordingly.
- 3.4 All weld procedures, welder qualification certificates, material certificates, weld test records and pressure test records would be part of our final Quality Document which would be maintained as part of our adherence to ISO 9002 to which our company is currently approved by LRQA.
- 3.5 All tube ends which have to be expanded will be annealed to assist in successful expansion in place.

4. DELIVERIES.

We could arrange deliveries to the ship prior to refit, or to the refit location, as you require, and suggest that, should bur quotation be acceptable to Norwegian Cruise Line the tubes be ordered as quickly as possible as we currently have both material and fabrication capacity available.

5. INSTALLATION.

The following would be the work scope to be done on each boiler of ss. NORWAY and includes the whole works to be required at this time, and should Harris Pye Marine be favoured with the order for this work, then we would produce a detailed bar chart showing all phases of the project, from material acquisition, through manufacture, inspection, installation and testing:-

5.1. Remove the drum internals and store safely in readiness for refitting.

-456, USCG, TO, PS.20F5



- 5.2. Remove refractories to scrap.
- 5.3. Start the removal of the boiler tube to a pre agreed plan so that all drums and header remain adequately and safely supported throughout.
- 5.4. Clean all drum and header areas in readiness for the fitting of the new tubes and inspect all ligaments for defects using a dye penetrant method.
- 5.5. Fit the new tubes in accordance with the first stage of the building plan.
- 5.6. When these tubes are in place, fully expanded and/or welded remove the balance of the old tube and repeat items 4 and 5 for these tubes.
- 5.7. During this operation the superheater support tubes and the superheater tubes will romain undisturbed!
- 5.8. Close up the water spaces and carry out a hydraulic pressure test on the boilers.
- 5.9. Rebuild the refractofics within the boilers where they have been disturbed for access.
- 5.10. Reinstate the insulation and easings, using the original materials which would have been carefully removed and stored at the start of the work. Should the condition of the casings removed be deemed unfit for refitting with the same material, then we would be able to replace this with new at the rate of \$275 per square metre.
- 5.11. Refit the drum internals and hand over to the Chief Engineer for careful firing to allow drying and curing of the refractory.

NOTE

Because of the tight schedule required to complete this work, it will probably be considered necessary to put one team to sail on the ship prior to arrival at the docking to commence removals from one boiler. This eventuality would be absorbed in our price and would involve no additional costs! In the unlikely event that we would have to keep a team on after the ship sailed from the yard then this too would incur no additional charges - unless they had been delayed by, or were engaged on any scope of work outside the workscope previously described.

6. PRICE

For the supply of the materials specified and the installation work listed, our price would be

U.S. \$1.995.650 - FOR TWO BOILERS. ONE MILLION, NINE HUNDRED AND NINETY FIVE THOUSAND SIX HUNDRED AND FIFTY U.S. DOLLARS)

THIS PRICE APPLIES FOR THE WORK TO BE CARRIED OUT AT ANY EUROPEAN YARD!

CERTIFIED TO BE A TRUE COPY

7, LTJG, UXG, TO P9.30F5



7. TERMS OF PAYMENT.

Should Harris Pye Marine Ltd. be favoured with the order for this work by Norwegian Cruise Line then we would request the following terms of payment which would permit us to procure the materials and proceed with the fabrication and Class approvals:

30% with order.

15% upon delivery to the refit location.

55% within 30 days of handing over to the Chief Engineer.

8. INCLUDED IN OUR PACKAGE.

The following items would be included as part of our supply:

Our overall project manager would be in attendance throughout the dry dock period, and he would be a qualified Engineer with extensive experience in boiler operation, maintenance and surveying, so that a final report on all four boilers would be prepared, clearly identifying the exact status of the steam generating plant to allow N.C.L. to evaluate the expected reliability in service.

Engineering, supervision and labour.

All tools, equipment and consumables.

All tube materials listed in the foregoing text.

All refractory materials becessary for the completion of the work to the complete satisfaction of Owners - up to 25 tomes per boiler if required.

Weld procedure approval.

Welder qualification.

Certification of all materials and fabrications.

All protective clothing.

Shiprepairers liability insurance to one million U.S. dollars.

9. EXCLUDED FROM OUR PACKAGE.

Accommodation and meals which we assume to be on board,

Travel and transport.

Lighting, electrical power, water, compressed air and gases.

Disposal of scrap.

Third party inspection and Classification Society fees.

Shipyard and agency commissions.

Delays out with our control.

Demurrage and cost af delays during and subsequent to the repairs.

11

LTJG, USG, IO PG



10. ASSUMPTIONS.

We assume that the structures of the plant involved in the work scope have the correct geometry corresponding to the drawings noted in the material supply section, and that the metallurgical properties temain as original. Should either, or both of these assumptions prove to be incorrect, then all work required to rectify such defects to ensure acceptable completion will be treated as additional to contract and charged accordingly.

All manufactured tubes of Harris Pyc Marine supply will be of sufficient length to extend from drum to drum, header to header or from stub to stub. The renewal of welded stub pieces is excluded from our quotation unless otherwise specifically stated.

We assume that any shell plate removal and replacement deemed necessary for the access into the boiler room will be done by the shippard as the dry dock usually prefers to carry out all shipside shell work themselves. Should they have any problems with appropriate codings for the re welding, then we would be pleased to be of assistance to them with this.

11. QUALITY ASSURANCE.

Harris Pye Marine Ltd is approved to ISO 9002 for the storage, handling and fabrication of boiler tubes, and all documentation and certification of supplies and testing will be in accordance with that standard and included in our final Quality Document, multiple copies of which will be handed to Norwegian Cruise line upon completion of the work.

12. GUARANTEE.

Flarris Pye Marine Ltd. guarantees all workmanship and materials for two years subject to the correct operation of the plant and the strict adherence to the maintenance of boiler water treatment

We trust that the foregoing is of service to your company and hope to have the opportunity of assisting you on this interesting and challenging project, which is similar to many other such projects performed successfully by Harris Pye Marine in the past.

We believe that the foregoing covers all aspects of the proposed repair work, but if you have any queries, or require any changes to the specification then please contact us at any time and we will give N.C.L. our best attention.

Yours faithfully,

Paul F. Hancock, C.Eng., F.I.Mar.E., F.Inst.D.

Technical Director.

5

CERTIFIED TO BE A TRUE COPY

DILTER, USCG, ID Pg. 5 of

TOTAL P. Ø6



ACCEPTANCE CERTIFICATE.

SHIP:

ss "NORWAY"

CONTRACT NO. MI 5192

CLIENT:

NORWEGIAN CRUISE LINE.

ACCEPTANCE OF RADIOGRAPHY

This is to certify that Boiler No. 21 - has had radiographic inspection carried out on the butt welds as identified on the accompanying sheets and all found to be acceptable within the scope of the Inspection Standard.

PRINT 10 MAY '99 DATE ON BEHALF OF HPM.

ON BEHALF OF OWNER

ON BEHALF OF CI

SIGNED PRINT

DATE_



ACCEPTANCE CERTIFICATE.

SHIP:

ss" NORWAY"

CONTRACT NO. MI 5192

CLIENT:

NORWEGIAN CRUISE LINE.

ACCEPTANCE OF RADIOGRAPHY

This is to certify that Boiler No. 22 has had radiographic inspection carried out on the butt welds as identified on the accompanying sheets and all found to be acceptable within the scope of the Inspection Standard.

SIGNED

PRINT

DATE

10 MAY '99

ON BEHALF OF HPM.

CERTIFIED TO BE A TRUE COPY

LOSCO, LTSG, USCG, FO pg. Lof 1

ON BEHALF OF OWNER!

SIGNED

DATE 10 May.

ON BEHALF OF CLA

PRINT



ACCEPTANCE CERTIFICATE.

SHIP:

ss "NORWAY"

CONTRACT NO. MI 5192

CLIENT:

NORWEGIAN CRUISE LINE.

CERTIFICATE OF HYDRAULIC TEST.

This is to certify that the hydraulic pressure test of the

BARE TUBE ECONOMISER of No. 21 BOILER

has been carried out to the satisfaction of Owners and Class.

DATE 11 MAY '99

ON BEHALF OF HPM.

DATE 12

ON BEHALF OF OWNERS



Harris Pye Marine Ltd



David Davies Road No.2 Barry Dock

Barry

South Wales, UK.

:(+1446) 720066 Tel :(+1446) 700801 Fax

: 497388 HARPYE G Telex

To:	NORWEGI	AN CRUISE LINE	Fax Serial No:	68655
Attn:	TECHNICAL MARITIME PURCHASIN		G From	PAUL F HANCOCK
Our Ref/Matter	"NORWAY"	– MI 5912		
Fax No: of Addresse	001 305 43	6 4137	Country	U.S.A.
Date Sent	22 ND OCTO	DBER 1998	Time Sent	0920 HRS
□ Urgent □	For Review	☐ Please Comment	☐ Picase Reply	□ Please Recycle
•Comments:				
Dear Sirs				
S.S. NORWA	<u>Y</u>			• •

BOILER RETUBING O/No. 348 474

We acknowledge with thanks the receipt of your offical order number as above for the retubing work to boilers 22 and 23 during the 1998 refit in accordance with our quotation of 18th September 1998 and as ammended in fax 68387 of 12th October 1998.

We confirm that the materials are on order or already at our Workshop and that tube bending will be started shortly.

Best Regards

Paul F Hancock

C.Eng., F.I.Mar.E., F.Inst.D. TECHNICAL DIRECTOR

TOTAL No: OF PAGES INCLUDING THIS PAGE: 1

If you do not receive all pages, or any portion of the transmission is illegible, please notify us via our telephone switchboard, fax or Tel (No.s above) CERTIFIED TO BE A TRUE COPY & SO, LTSG, USCG, IO FB immediately.

1

REPAIR SPECIFICATION.

S.S. NORWAY - BOILERS

1999 REFIT.

The contractor is invited to tender for the following work on two boilers of S.S. NORWAY, to be carried out during the 28 day docking in 1999. Two of the boilers are to have the same work carried out on each, and the following text refers to ONE BOILER.

1. TUBES TO BE RENEWED. (Contractor Supply)

- 1.1 16 pieces of REAR WATER WALL tubes as shown on the Chantiers de l'Atlantique drawing No. FRA CHP 1 25 and entitled " Faisceau Tubulaire Mur d'eau Facade Ariere" and supplied as fully fabricated tubes from 70 mm O.D. by 6.3 mm W.T. certified boiler tube to DIN 17175 ST 35.8 GR 1.
- 1.2 251 pieces of GENERATING BANK TUBES as shown on the Chantiers de l'Atlantique drawing No. FRA CHP 1 24A 1 and entitled "Faisceau Tubulaire Faisceau Vaporisateur" and supplied as fully fabricated tubes, rows 5 13, as follows:-196 from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR 1.
- 55 from 57 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR 1.
- 1.3 57 pieces of SCREEN TUBES as shown on the Chantiers de l'Atlantique drawing No. FRA CHP 1 24A 1 and entitled " Faisceau Tubulaire Faisceau Vaporisateur" and supplied as fully fabricated tubes from 70 mm O.D. by 6.3 mm W.T. certified boiler tube to DIN 17175 ST 35.8 GR 1.

CERTIFIED TO BE A TRUE COPY & SCH, TO Pg 1 of 4

Page 1

1.4 56 pieces of SIDE WALL TUBES as shown on the Chantiers de l'Atlantique drawing No. FRA CHP 1 - 24A - 1 and entitled "
*Faisceau Tubulaire - Faisceau Vaporisateur" and supplied as fully fabricated tubes from 70 mm O.D. by 6.3 mm W.T. certified boiler tube to DIN 17175 ST 35.8 GR 1.

All tubes to be supplied as fully fabricated and ready to fit and with all ends annealed, complete with Class certificates and material certificates in accordance with ISO 9002.

2. INSTALLATION WORK AND ADDITIONAL ITEMS.

The retubing of the two boilers is to be planned for completion during the 28 day docking period and the contractor should allow for 24 hour coverage to ensure that the programme is met. A three shift working system should be considered.

The contractor should include for the removal and reinstatement of plant and structures in order to gain saic access into the bother room for the new materials and for the removal of scrap. He should also include for the supply of safe access within the boiler, with appropriate lighting and ventilation.

The contractor should include in his price for the delivery of the fabricated tubes to the ship at the start of the docking period as well as for the handling from the shore to the boiler room.

In order to gain access for the retubing, the contractor should include in his price for the removal, testing and reinstatement of drum internals with new bolting and joints as necessary.

The contractor should produce a retubing plan to demonstrate that all drums and headers will remain adequately and safely supported as tubes are removed and refitted, and any deviation from that plan must have prior approval from the Owner's representative.

CERTIFIED TO BE A TRUE COPY

LTJG, USCG, TO

Pg. 20F4

THE REAL PROPERTY.

3

The contractor should produce a bar chart showing all phases of the repair from the acquisition of the raw materials, through the fabrication exercise and delivery as well as for the on board installation work. This will allow close monitoring of progress and highlight any potential delays.

The contractor should allow for the supply of refractories to reinstate those which will have to be removed to gain access for tube renewals, and this should be included as part of the fixed price sum.

The contractor should quote an additional value per Kg for the renewals of any other refractories which might be deemed as necessary for renewal upon inspection.

It is intended that the casings removed should be carefully removed and stored in readiness for refitting upon completion of the pressure test, but in case any be found not to be in a condition suitable for reuse then the contractor should quote a value per square metre for casing reinstatement with new materials.

Tube holes in drums must be cleaned to the satisfaction of the Owner's representative prior to the fitting of new tubes and any defects caused by the removing technique rectified to the approval of Owners and Class at the contractor's expense.

Tube hole ligaments must be thoroughly cleaned and inspected using a dye penetrant technique to the satisfaction of the Owner's representative, and a report on this inspection should be included as part of the overall Quality Assurance package.

The contractor should include in his price for the provision of Class approved weld procedures for any pressure part welding proposed, and these certificates, along with the welders' qualification certificates should be included in the Quality Assurance package in accordance with ISO 9002.

CERTIFIED TO BE A TRUE COPY

LTSG, USCG, FO

PS. 3 OF 4

Upon completion of retubing and prior to the hydraulic pressure test, all headers and drums must be seen to have been cleaned out by the contractor in company with an Owner's representative.

The contractor must include for the handling and safe disposal of all scrap materials.

The contractor is to include for the provision of a hydraulic test pump with a Class approved calibrated pressure gauge and to carry out all necessary hydraulic pressure tests to the satisfaction of Owners and Class, using ship's supply water. The certificate of hydraulic pressure test should be part of the overall Quality Assurance package which will be required by Owners upon completion of the work and included as part of the fixed price.

During the repair the contractor is to allow for the provision of a qualified engineer, experienced in boiler surveying techniques to report on the condition of the boiler structures and to make recommendations for any future remedial work or changes in operational procedures.

CERTIFIED TO BE A TRUE COPY

CERTIFIED TO BE A TRUE COPY

CO



David Davies Road, No. 2 Barry Dock,

INVOICE Beny,

South Wales, U.K. **CF63 4AB**

Tel:

(01448) 720066

Fax:

(01448) 700801

7665 CORPORATE CENTER DRIVE

Tolox: 497398 HARPYE G

Please quote our

MI 10228

Invoice No.

V.A.T. No. 484 1925 25

Ref.

MI 5912/S.S.NORWAY

Customer To. NORWEGIAN CRUISE LINE.

UNITED STATES OF AMERICA

MIAMI, FLORIDA

FL-33126

Date

12¹⁸ APRIL 1999

Order No. 0000348474

Due Dete

19TH APRIL 1999

S.S.NORWAY NOS 22 + 23 BOILER RETUBING

IN ACCORDANCE WITH OUR QUOTATION OF 18 SEPT 1998 AND FAX 68387 OF 12 OCT 1998 FOR THE SUM OF GEP £1,191,432.00

TO 15% WITH DELIVERY AS PER AGREED TERMS

TOTAL AMOUNT PAYABLE THIS INVOICE

POUNDS STERLING

178,715.00

£178,715.00

OUR TERMS ARE: PAYMENT DUE 19^{TE} APRIL 1999



APR-12-1999 11:03

TOTAL P.02

P.02

Phone: (305) 438-4000 • TELEFAX: (305) 438-4120	00348474 10/13/98 mcx 1
17 ST. ANDREWS CRESENT	BELOW SHIPPING COMMATION
S/S NORWAY 20 CHUSE NO. 0541381300 NUMBERS NO. 0541381300	OST DE LEGIFICA IO.
	D DAYS
NO. NCL PART NO/ DESCRIPTION QUANT	
YOUR REF: NORWAY - NOS 22 + 23 BOYLER RETUR 外 PICCSE CENTIFUM VIA FAX.来 DOI 0520 99999 RE-TUBING OF BOYLER 22 AND 23, DURING 1999 D APRIL 16 THROUGH MAY 21, 1999, IN NORTHERN E SHIPYARD.	GBP 1 EA 191,432/00 1,191,432.
*** ALL WORK AS PER ATTACHED SPECS *** ALL TERMS, CONDITIONS AND AGREEMENTS AS *** NEGOTIATED BY SENIOR PORT ENGINEER PER *** *** ALL PAYMENTS TO BE MADE PER ATTACHED QUI *** AND MUST BE APPROVED BY SENIOR PORT ENG *** PER SOPP	GTATION ***
INVOICE INSTRUCTIONS: 1. INVEICE MUST MATCH PURCHASE ORDER BY LIN 2. BACK ORDERS MUST BE INVOICED INDIVIDUALL 3. EACH INVOICE MUST BE SUBMITTED IN TRIPLI ACCOMPANIED BY PROOF OF DELIVERY. 4. INVOICE TO BE SENT TO ABOVE ADDRESS TO A OF ACCOUNTS PAYABLE DEPARTMENT. DELIVERY INSTRUCTION*: 1. COPY OF PROFORMA INVOICE TO ACCOMPANY EX- 2. CARTONS BE MARKED WITH WESSEL NAME, ORDER	THE TO BE A TRUE COPY SOLVE TO BE A TRUE COPY
In accepting this series, expolar agrees to the instructions and operationisms and instructions and the bases and conditions based on the purchase and the bases and conditions are conformable and power this purchase and their based, there is no series and conditions are conformable and power this purchase and their based, there is no series and conditions are conformable. BYCOCOMC DESTRICTIONS benefic manual clearly blancing the name of mer vessed fit applicable, the place and this of delibery, breakes shall make a surprise series would, i.e. descriptions, prices, make of measure, etc. A signed pulsery lessel at a signed shippers that a larger than a surprise series and powers are required exponentially the place of the pulsers and required exponential previous or to sent the based only applicate original broakess and required exponentials for based only applicate original broakess and required exponentials. **This of the condition of the co	TOTAL 1,191,432



Customer

To:

INVOICE

HARRIS PYE MARINE LTD.

David Davies Road, No. 2 Barry Dock, Barry, South Wales, U.K. **CF63 4AB**

Tel:

(01446) 720066

Fax:

(01446) 700801

Telex: 497388 HARPYE G

Please quote our

MI 9864

Invoice No.

V.A.T. No. 484 1925 25

Ref.

MI 5912/S.S.NORWAY

NORWEGIAN CRUISE LINE

MAIMI, FLORIDA

FL-33126

7665 CORPORATE CENTER DRIVE

UNITED STATES OF AMERICA

Order No.

0000348474

Date

21ST OCTOBER 1998

Due Date 21ST NOVEMBER 1998

S.S.NORWAY NOS. 22 + 23 BOILER RETUBING

IN ACCORDANCE WITH OUR QUOTATION OF 18 SEPT 1998 AND FAX 68387 OF 12 OCT 1998 FOR THE SUM OF GBP £1,191,432.00.

TP 30% WITH ORDER AS PER AGREED TERMS

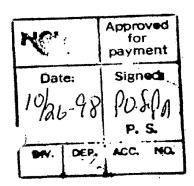
TOTAL AMOUNT PAYABLE THIS INVOICE

POUNDS STERLING

357,430.00

£357,430.00

OUR TERMS ARE: THIS INVOICE NOW PAYABLE





No.



Tel: (01448) 720066 Fax: (01446) 700801 Telex: 497388 HARPYE G

HARRIS PYE MARINE LTD.

David Davies Road. No.2 Barry Dock, Barry, South Wales, CF63 4AB



TO: NORWEGIAN CRUISE L	NE FAX SERIAL NO:68387
ATTHE ASI E VIKING	FROM: TONY JONES
OUR REFMATTER: FAX NO OF ADDRESSEE: 00.1.3 DATE SENT:12TH OCTOBER	05 436 4135 COUNTRY: U.S.A. 1998 TIME SENT: 11.05 HOURS

COPY; PER O SOPP

REF: NORWAY - NOS 22 + 23 BOILER RETUBING

Sir,

Further to discussions held on board S.S. NORWAY at Barcolona on 10th October between our Mr Hancock and Mr Sopp and in accordance with the request of Mr Sopp we confirm all contents of our offer of 18th September 98 to be true and correct. We would also confirm in order for N.C.L. to process the official Purchase Order the currency stated should be in BRITISH POUNDS and not USD as quoted, therefore please be advised our quotation as attached for \$1,995,650 (One Million, Nine Hundred and Ninety Five Thousand, Six Hundred and Fifty U.S. Dollars) converted at 1.675 USD = £1 will read £1,191,432 (One Million One Hundred and Ninety Ope Thousand, Pour Hundred and Thirty Two Pounds Sterling)

I trust this will now allow you to process the necessary paperwork.

Should you have any queries please advise.

Bost regards

Tony Jones DIRECTOR

TOTAL NO OF PAGES INCLUDING THIS PAGE: ..

IF YOU DO NOT RECEIVE ALL PAGES, OR ANY PORTION OF THE TRANSMISSION ARE ILLEGIBLE, PLEASE NOTIFY US VIA OUR TELEPHONE SWITCHBOARD, FAX OR TEL (NOS ABOVE) IMMEDIATELY.



\$1995,650,

Harris Pye Marine Ltd.,
David Davies Rd.,
Barry Docks,
Barry,
South Glamorgan,
South Wales,
CF63 4AB
UNITED KINGDOM.

18th September 1998

Norwegian Cruise Line, 7665, Corporate Centre Drive, Miami, Florida, FLA 33126 UNITED STATES OF AMERICA

For the attention of .- Mr. Per O. Sopp. Senior Port Engineer.

Dear Sirs.

s.s. NORWAY. Nos. 22 and 23 BOILER RETUBING.

We acknowledge with thanks the receipt of your enquiry document of August 28th 1998 and repair specification for the retubing of Boilers Numbered 22 and 23 of SS "NORWAY" during the 1999 drydocking and are pleased to submit our quotation as follows:-

1. EXTENT OF RETUBING.

Our quotation is based upon the extent of work being that the two boilers will be fully re-tubed with the exception of the superheaters, superheater support tubes and economisers.

2. MATERIAL SUPPLY.

For each boller we offer to supply the following materials:

- 2.1 16 pieces of REAR WATER WALL tubes would be fully fabricated and ready to fit to the identities "A to P" as shown on the Chantiers de l'Atlantique drawing No. FRA CHP 1 25 entitled "Falsceau Tubulaire Mur d'eau Facade Arlere" from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.
- 2.2 251 pieces GENERATING TUBES identified as Rows 5 13 on Chantiers de l'Atlantique drawing FRA CHPI 24A 1, entitled "Fulsceau Tubulaire Felsceau Vaporisateur", fully fubricated and ready to fit as follows:

CERTIFIED TO BE A TRUE COPY

LOSO, LISO, USCO, TO

PS. 5 0 F 9

SEP-30-1998 10:36

01446700801

88%

P.02



196 from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.

and

55 from 57 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.

- 2.3 57 pieces SCREEN TUBES identified as Rows 3 and 4 on the Chantiers de l'Atlantique drawing FRA CHP1 24A 1, entitled "Falsceau Tubulaire Falsceau Vaporisateur" from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.
- 2.4 56 pieces SIDE WALL/ROOF TUBES identified as Rows 1 and 2 on the Chantiers de l'Atlantique drawing FRA CHP1 24A 1, entitled "Falsceau Tubulaire Falsceau Vaporisateur" from 70 mm O.D. by 6.3 mm W.T. boiler tube to DIN 17175 ST 35.8 GR1.

3. GENERAL NOTES

- 3.1 All materials would be of the grades noted, or equivalent, or superior.
- 3.2 All materials would be certified in accordance with Class Rules.
- 3.3 All fabrications will be inspected by Class before dispatch from our works and certified accordingly.
- 3.4 All weld procedures, welder qualification certificates, material certificates, weld test records and pressure test records would be part of our final Quality Document which would be maintained as part of our adherence to ISO 9002 to which our company is currently approved by LRQA.
- 3.5 All tube ends which have to be expanded will be annealed to assist in successful expansion in place.

4. DELIVERIES.

We could arrange deliveries to the ship prior to refit, or to the refit location, as you require, and suggest that, should our quotation be acceptable to Norwegian Cruise Line the tubes be ordered as quickly as possible as we currently have both material and fabrication capacity available.

5. INSTALLATION.

The following would be the work scope to be done on each boiler of ss. NORWAY and includes the whole works to be required at this time, and should Harris Pye Marine be favoured with the order for this work, then we would produce a detailed bar chart showing all phases of the project, from material acquisition, through manufacture, inspection, installation and testing:-

2

5.1. Remove the drum internals and store safely in readiness for refitting.

dessited to be a true copy dessited to seed,

89%



- 5.2. Remove refractories to scrap.
- 5.3. Start the removal of the boiler tube to a pre agreed plan so that all drums and header remain adequately and safely supported throughout.
- 5.4. Clean all drum and header areas in readiness for the fitting of the new tubes and inspect all ligaments for defects using a dye penetrant method.
- 5.5. Fit the new tubes in accordance with the first stage of the building plan.
- 5.6. When these tubes are in place, fully expanded and/or welded remove the balance of the old tube and repeat items 4 and 5 for these tubes.
- 5.7. During this operation the superheater support tubes and the superheater tubes will remain undisturbed!
- 5.8. Close up the water spaces and carry out a hydraulie pressure test on the boilers.
- 5.9. Rebuild the refractories within the boilers where they have been disturbed for access.
- 5.10. Reinstate the insulation and easings, using the original materials which would have been carefully removed and stored at the start of the work. Should the condition of the casings removed be deemed unfit for refitting with the same material, then we would be able to replace this with new at the rate of \$275 per square metre.
- 5.11. Refit the drum internals and hand over to the Chief Engineer for careful firing to allow drying and curing of the refractory.

NOTE

Because of the tight schedule required to complete this work, it will probably be considered necessary to put one team to sail on the ship prior to arrival at the docking to commence removals from one boiler. This eventuality would be absorbed in our price and would involve no additional costs!

In the unlikely event that we would have to keep a team on after the ship sailed from the yard then this too would incur no additional charges - unless they had been delayed by, or were engaged on any scope of work outside the workscope previously described.

6. PRICE

For the supply of the materials specified and the installation work listed, our price would be

U.S. \$1,995.650 - FOR TWO BOILERS. (ONE MILLION, NINE HUNDRED AND NINETY FIVE THOUSAND SIX HUNDRED AND FIFTY U.S. DOILLARS)

Ø1446700801

THIS PRICE APPLIES FOR THE WORK TO BE CARRIED OUT AT ANY EUROPEAN YARD!

CERTIFIED TO BE A TRUE COPY

LOSCY TO

Pg. 70 F 9

3



7. TERMS OF PAYMENT.

Should Harris Pye Marine Ltd. be favoured with the order for this work by Norwegian Cruise Line then we would request the following terms of payment which would permit us to procure the materials and proceed with the fabrication and Class approvals:

30% with order.
15% upon delivery to the refit location.
55% within 30 days of handing over to the Chief Engineer.

8, INCLUDED IN OUR PACKAGE.

The following items would be included as part of our supply:

Our overall project manager would be in attendance throughout the dry dock period, and he would be a qualified Engineer with extensive experience in boiler operation, maintenance and surveying, so that a final report on all four boilers would be prepared, clearly identifying the exact status of the steam generating plant to allow N.C.L. to evaluate the expected reliability in service.

Engineering, supervision and labour.

All tools, equipment and consumables.

All tube materials listed in the foregoing text.

All refractory materials necessary for the completion of the work to the complete satisfaction of Owners - up to 25 tonnes per boiler if required.

Weld procedure approval.

Welder qualification.

Certification of all materials and fabrications.

All protective clothing.

Shiprepairers liability insurance to one million U.S. dollars.

2. EXCLUDED FROM OUR PACKAGE.

Accommodation and meals which we assume to be on board.

Travel and transport.

Lighting, electrical power, water, compressed air and gases.

Disposal of scrap.

Third party inspection and Classification Society fees.

Shipyard and agency commissions.

Delays out with our control.

Demurrage and cost of delays during and subsequent to the repairs.

CERTIFIED TO BE A TRUE COPY

LTSG, USCG, TO

Pg. 8 of 9

Ø1446700801



10. ASSUMPTIONS.

We assume that the structures of the plant involved in the work scope have the correct geometry corresponding to the drawings noted in the material supply section, and that the metallurgical properties remain as original. Should either, or both of these assumptions prove to be incorrect, then all work required to rectify such defects to ensure acceptable completion will be treated as additional to contract and charged accordingly.

All manufactured tubes of Harris Pye Marine supply will be of sufficient length to extend from drum to drum, header to header or from stub to stub. The renewal of welded stub pieces is excluded from our quotation unless otherwise specifically stated.

We assume that any shell plate removal and replacement deemed necessary for the access into the boiler room will be done by the shipyard as the dry dock usually prefers to carry out all shipside shell work themselves. Should they have any problems with appropriate codings for the re welding, then we would be pleased to be of assistance to them with this,

11. OUALITY ASSURANCE.

Harris Pyc Marine Ltd is approved to ISO 9002 for the storage, handling and fabrication of boiler tubes, and all documentation and certification of supplies and testing will be in accordance with that standard and included in our final Quality Document, multiple copies of which will be handed to Norwegian Cruise line upon completion of the work.

12. GUARANTEE.

Harris Pyc Marine Ltd. guarantees all workmanship and materials for two years subject to the correct operation of the plant and the strict adherence to the maintenance of boiler water treatment.

We trust that the foregoing is of service to your company and hope to have the opportunity of assisting you on this interesting and challenging project, which is similar to many other such projects performed successfully by Harris Pye Marine in the past.

We believe that the foregoing covers all aspects of the proposed repair work, but if you have any queries, or require any changes to the specification then please contact us at any time and we will give N.C.L. our best attention.

Yours faithfully.

Paul F. Hancock, C.Eng., F.I.Mar.E., F.Inst.D.

Technical Director.

TOTAL P.02

P. 02